

Statistics of Income Studies of Individual Income and Taxes

By Michael J. Coleman*

This is the third in a series of articles on broad areas of the Statistics of Income (SOI) program [1]. Since there has been an individual income tax return SOI program almost since the inception of the modern income tax, it is appropriate here to review this program in the context of the evolution of the income tax. In this context, examples are provided of statistical data trends which reflect the response of the taxpaying public over the years to changes in the tax law, from 1913 to the landmark tax reform legislation of 1986.

The organizational focus and thread of continuity of this article is the regular annual SOI individual income tax return program which is presented first and which receives the greatest emphasis. This is followed by brief discussions of related programs and special studies that are by-products of the regular program, including microdata public-use tax models, the Taxpayer Usage Study (TPUS), and the Sales of Capital Assets Studies [2]. Discussions of each address historical developments, definitions, and the data themselves; currently available information and services; and some future plans. The concluding section briefly introduces a number of the lesser individual income tax return statistical studies.

ANNUAL SOI PROGRAM

Income and tax statistics from individual income tax returns have been published annually by the Internal Revenue Service (IRS) beginning with the report for Tax Year 1916 (which also included some data for 1913-1915). Authority for the production and publication of SOI was initially provided for by the Revenue Act of 1916 and has been renewed since then through successive amendments to the tax laws [3]. Especially in recent years, the content of the program has been largely determined by the Office of Tax Analysis in the Office of the Secretary of the Treasury, for use in tax policy research and in estimating future tax revenues. The needs of other researchers are often satisfied on a cost-reimbursable basis.

Scope of the Program

Since they were initially published, the scope of the basic SOI programs and reports has varied considerably in terms of the detail provided in the tables and the classifications of data presented. As can be seen from Exhibit 1, the SOI report for Tax Year 1916 summarized all individual income

tax information in just seven tables. Areas addressed were income by source, occupation, tax by type, sex of taxpayer, and marital status (then called "conjugal condition"), with classifications by size of statutory "net income" and by State [4].

During the early years of the SOI reports, the individual income tax tabulations continued to remain few in number and were relatively simple. Data presented were controlled largely by the relatively small number of data items available for the statistics (the tax law and the resultant tax forms were relatively simple by today's standards) and by lack of modern data processing technology and equipment. Until the late 1920's, the individual income statistics particularly emphasized the tax, the size of income producing the tax, and the State where the returns were filed. In fact, a major portion of each report was devoted to State data. Some 30 years later, the SOI report for 1946 had increased to fourteen basic tables, largely through the introduction of crosstabulations. These, too, were relatively uncomplicated compared to today. New data added along the way covered such items as number of exemptions, tax payments, more detailed types of income, and types of itemized deductions. All of these increases reflected the growing complexity of the tax law and of the resultant tax forms. New classifiers, including size of specific types of income, were incrementally added over these years.

In large part, these changes reflected changes in SOI users. Besides continuing to meet the needs of Treasury tax policymakers and revenue estimators, SOI attempted to meet the growing needs of numerous Congressional, Federal, State and private economic research agencies. As a result, SOI gradually developed into a document containing basic economic data, in addition to the traditional more tax-oriented data. The latter continued to be necessary, especially as the tax code grew in scope and complexity. As this occurred, the tax return itself began to contain more desirable data for economic and statistical analyses.

Computer processing introduced in the mid-1950's enabled more sophisticated tables to be produced and, by 1979, the tables included in SOI had grown in number and complexity in order to meet customer needs. Added detail, for instance, was presented on the number of returns filed, for sources of income, on marital status, and on nontaxable returns. There was more information for types of dependents, types of tax computation, and for the several tax credits. New classifiers included taxpayers age 65 and over and marginal tax rates, and alternative definitions of total

*Prepared with significant contributions from Kenneth Rice, David Paris, and Brenda Harrison of the Individual Statistics Branch.

income were introduced to facilitate analysis [5]. However, data classified by State disappeared after Tax Year 1982 because of the need to reduce the size of the SOI sample of returns used for the statistics [6]. Nevertheless, by Tax Year 1985, there were 30 basic and special tables and information presented on 218 items from the tax returns [7].

Notwithstanding the changes over time in the character and content of the SOI reports, seven data items have nearly always been published. They include: number of returns, each major source of income, a "gross" income, a total of deductions, a net or taxable income, personal exemptions, and the Federal income tax liability. Exhibit 2 shows some of these data yearly from 1913, including preliminary data for Tax Year 1986 [8].

As Exhibit 2 shows, salaries and wages have always been the largest single source of income, especially since the extension of the income tax to most of the U.S. population in the early 1940's. Business profits, dividends, and taxable interest have comprised the other three major income sources. Trends over the years for each of these sources as well as for the total or "gross" amount used for the statistics are affected not only by economic factors, but by changes in the tax law and in the tax forms, and also by decisions made when processing the data. All of these factors can complicate time series analyses.

Considering only the years for which "adjusted gross income" (AGI) was the total or "gross" amount used for SOI, i.e., for tax years after 1943, salaries and wages reached a record high of 84.5 percent in 1982. The sum of the four principal income sources reached a record high (98.5 percent) and a record low (93.8 percent), both within the 5-year period ending with 1986. The latter reflected the substantial increase in yet another source of income, capital gains, in 1986 [9].

Over this more than 40-year period, the proportion of AGI attributable to dividends gradually declined, although dividends never exceeded 3.4 percent of the total. In contrast, taxable interest income gradually increased. Dollar-wise, interest surpassed dividends for the first time in 1967, so that by 1986 interest income was 2.6 times larger than dividend income. While taxable interest was less than 1 percent of AGI until the mid-1950's, it increased thereafter to around 8 percent for the recent years of high interest rates. For the fourth major income source, business profits (from sole proprietorships, including farms; partnerships; and, since the mid-1960's, "S" Corporations), the data show a long steady decline from over 17 percent after the end of World War II to around 3 percent for the first half of the 1980's.

In general, increased demands for additional revenues to finance World War I, World War II, and the Korean conflict

caused rapid and numerous changes in the tax law. The most far-reaching revisions occurred in the early 1940's; however, prior to (and long before) 1940, many other important tax law changes occurred. Among them were the introduction of the credit for dependents and the deduction for charitable contributions (1917) and adoption of preferential tax rates on long-term capital gains and introduction of a gross income filing requirement (1921). In 1939, for the first time, all the revenue laws still in effect up to that time were consolidated into a single statute which became known as the Internal Revenue Code of 1939.

A brief summary of major tax law changes affecting individual income tax returns beginning in 1943, is provided in Figure A. In the early 1940's, revisions to the law occurred when the individual income tax base was broadened to cover most of the working population. Then, during the many years for which the Internal Revenue Code of 1954 was in effect, there were numerous tax law changes affecting individuals which, in addition to having revenue objectives, reflected a concern with social objectives and economic incentives as well.

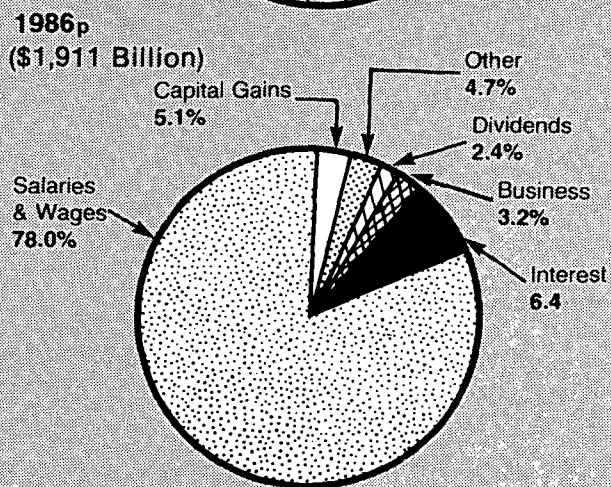
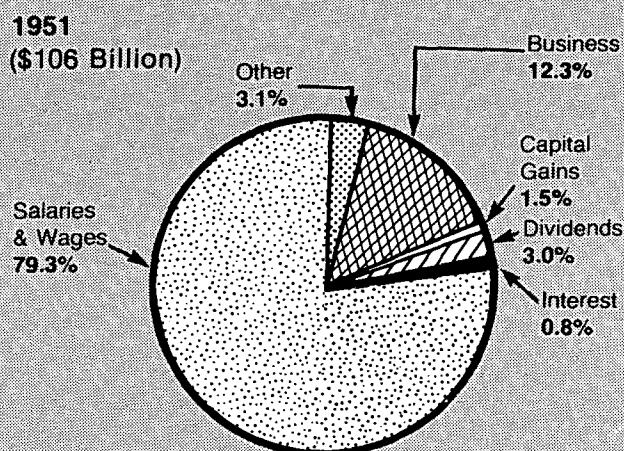
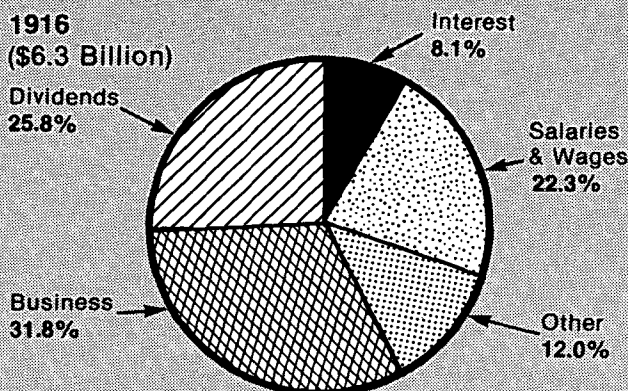
The first half of the decade of the 1980's has witnessed a continuation of this trend. A series of tax cuts was introduced by the Economic Recovery Tax Act of 1981, the overall thrust of which was to lessen the individual income tax burden. Still more dramatic tax law changes, with similar objectives, have been introduced by the Tax Reform Act of 1986 (encompassed in the new Internal Revenue Code of 1986). The impact of this Act will be reflected in SOI programs starting with Tax Year 1986.

Population Coverage of Individual Income Tax Returns

Figure B graphically displays the growth in the number of returns filed for 1913 through 1986. The number of returns filed prior to 1940 ranged from approximately 300,000 to 7,000,000. However, with the introduction of lower income filing requirements for 1940, the number of returns filed doubled to more than 14.7 million. It took 33 years, from 1913 to 1946, to reach 50 million. Some 40 years later, for 1986, the number of returns filed had increased to 103.3 million. It is projected that the number of individual filers for 1987 will be about 104 million [10].

The percentage of the total U.S. population represented on individual income tax returns is illustrated in Figure C. This percentage increased quite dramatically over time. For instance, for 1918, approximately 10 percent of the population was represented by a taxpayer or a dependent on an individual income tax return. The percentage remained relatively low until the expansion in the coverage of individuals having to file tax returns that occurred in the early 1940's. By 1946, more than 87 percent of the population

Figure A
Major Sources of Individual Income, Tax Years 1916, 1951 and 1986



NOTE: Year-to-year comparability is affected by tax law changes

1986 Data are preliminary

lation, in part, reflecting tax law changes designed to exempt certain low-income recipients from income taxation. It is because of this widespread representation of the U.S. population on individual tax returns that the idea of using tax records has surfaced as a possible viable alternative to the traditional ways of conducting the decennial population census [11].

Future Plans

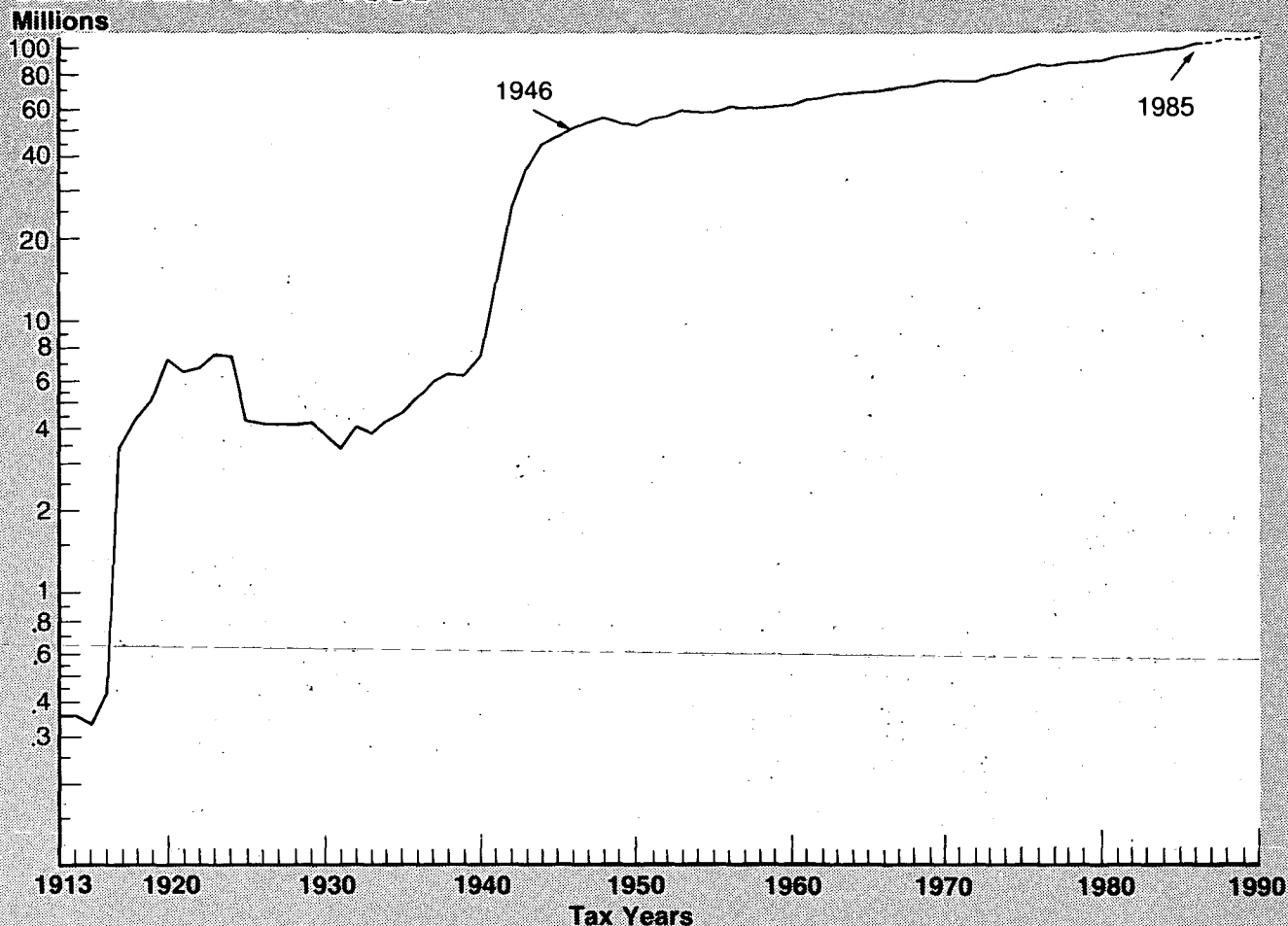
The SOI individual income tax return program, almost from the beginning, has been based on samples of returns. Samples and sampling have been modified over the years to reflect changes in design, selection procedures, and resources, as well as changing program objectives. In recent years, the sample size has alternated between 80,000 returns for even-numbered tax years and 120,000 for odd-numbered years.

Current plans are to further redesign the sample. As part of the redesign, the present system of alternating the sample size between odd- and even-numbered tax years will be dropped. As a result, the future sample size will grow from a base of approximately 120,000 returns. The major focus of the redesign, however, is to provide for the inclusion in the sample of all returns filed by family members and of a panel of returns representing the same taxpayers from year to year. The impetus for introducing the family concept is that for 1987, for the first time, social security numbers (SSN's) for dependents age 5 or older will be required on tax returns. Plans are to "construct" families, as part of the SOI program, by linking returns from all family members who file, whether jointly or separately, and then combining and categorizing all of their income [12]. The planning for this sample redesign is already underway, and implementation will be phased in over 3 years, beginning with Tax Year 1988.

The present kinds of SOI data, based on the type of probability sample now used, are expected to continue. In addition, special tabulations may be produced from the panel. This longitudinal feature of the SOI sample may gradually increase the total sample size over time as panel members change income and other characteristics and as more returns meet the criteria for inclusion in the panel, so that eventually most tabulations will be based on panel returns. An advantage of this longitudinal design is that it will reduce the sampling variability of year-to-year estimates of change. It will also improve the estimates derived from subsamples of the SOI sample that focus on special groups of taxpayers, e.g., those reporting sales of capital assets, or those with income earned abroad or with a foreign tax credit.

was covered. In the 1950's, the percentage grew still further, then seemed to stabilize at about the same level as Tax Year 1986—at approximately 95 percent of the popu-

Figure B

Growth in Number of Individual Income Tax Returns, Tax Years 1913-1990

1946 — The first year that the number of returns filed passed the 50 million level at over 52.8 million.

1985 — The first year that the number of returns filed passed the 100 million level at over 101.2 million.

1987-1990 — Projected number of returns

NOTE: For 1913-1927, includes individual income tax returns with income (loss returns are excluded) and return of estates and trusts with taxable income; for 1928-1937, includes all individual income tax returns and estates and trusts with taxable income. Starting 1938, represents all individual income tax returns; 1986 is preliminary.

The *Statistics of Income—1985, Individual Income Tax Returns* report includes tables based on a new total income concept (in addition to the traditional AGI, the tax return concept), which includes all income reported on the tax return, before subtraction of adjustments, exemptions, or deductions (except for expenses incurred in the process of earning the income) [13]. The components of total income are limited to items that are available for all Tax Years from 1979 through 1986, thus providing a basis for comparison that is relatively free of the effects of the tax law changes that occurred during this period. Of course, data on AGI will also be included. The SOI report for 1986 will include statistics based on this new measure and present a comparison in current and constant dollars as well.

Beginning with Tax Year 1987, a second new income definition will be introduced which will include all income

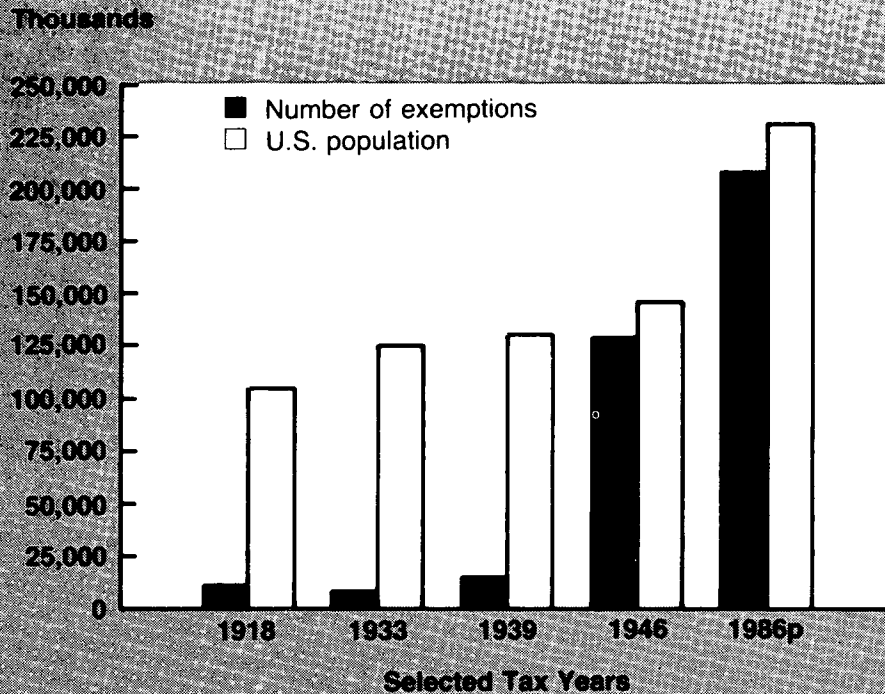
reported on the 1987 tax forms, whether taxed or not. This concept expands on the earlier effort and will cover all of the new income items brought in by the major tax legislation of the 1980's, namely social security benefits, unemployment compensation, and tax-exempt interest on State and local Government obligations. The Tax Year 1987 SOI report will include data based on each of the two new concepts, as well as on AGI.

TAX MODEL

The Tax Model is an abridged version of the individual SOI data file and is available on magnetic tape. For recent years, it contains all the records (except for any excluded to avoid disclosure of information about a particular taxpayer) contained in the SOI file, but includes a reduced number of

Figure C

Number of Exemptions (Other Than Age and Blindness) Claimed on Individual Tax Returns vs. U.S. Population, Selected Tax Years, 1913-1986



1918 — About 10% of the population covered by tax returns

1933 — Because of the Great Depression the percentage dropped to approximately 7%

1939 — Population covered by returns grows to slightly more than the 1918 level

1946 — Broadening of the tax base caused the percentage to increase dramatically to almost 87%

1986 — Approximately 95% of the population is now covered

P — Preliminary

items [14]. The 1985 Tax Model provides 40 statistical codes to facilitate classifications of the data and 160 data items for each record. These 160 items cover the basic data reported on the individual income tax return. In this abridged form, the entire Tax Model for a given tax year can be stored on disk, rather than on the multiple tape reels which are required for the entire SOI individual file.

The Brookings Institution was instrumental in developing the first Tax Model in the early 1960's. Since then, it has obtained a file for almost every year and has published numerous reports on tax-related issues, based in large part on research conducted using these files [15].

Currently, the Tax Model is produced in three forms to accommodate three classes of users:

- An "in-house" file used to meet requests for special tabulations;
- A State Tax Model File for State Tax Administrators; and
- A Public-Use Individual Tax Model File.

Each of these files is described below [16].

In-house File.—The In-house File is used to produce tabulations, generally, in the case of users outside the Department of Treasury, on a cost-reimbursable basis. This File was created to service the many special requests received annually. Because each tabulation is tailored to a particular user's needs, special computer programs are written to access the File for each distinct user request. In

1985 and 1986, there were a flurry of special requests from the Congress and the Office of the Tax Analysis for tabulations in connection with various aspects of the Tax Reform Act of 1986.

State Tax Model.—The second form of the Tax Model is the State Tax Model File. This File is a subset of the In-house Tax Model mentioned above, containing all sampled returns in that File from the requesting State. Because the File contains taxpayer identifying data such as SSN, it is made available for tax administration purposes only and can be requested only by State tax administration agencies. Any such request must first be cleared by an IRS disclosure official.

The State Tax Model File is distinct from the State extracts from the IRS Master File system which most State tax administration agencies receive under the Federal State Exchange Program [17]. These latter files do not contain the level of detail contained in the State Tax Model: 200 data items are present on the State Tax Model File, while only 125 are contained in the Master File system. Another difference in the files relates to usability. The tax return data contained in the State Tax Model have been subjected to extensive statistical editing and testing. In contrast, the editing and testing of data for tax administration purposes is more selective in its approach and objectives.

Since the Tax Reform Act of 1986, the Statistics of Income Division has received numerous requests for State data suitable for analyzing the revenue impact of various provisions of the Act. The State Tax Model has been especially useful for this purpose. As an example of some of the other uses made of the file by States, the State of Washington purchased 2 years of data to analyze whether or not to institute a State income tax; Texas also did the same thing with the 1984 State Tax Model. As another example, Virginia used the data to analyze making changes in its State tax code, including whether to use its tax system to fund state elections.

The State Tax Model File is designed with a view toward user convenience. It is contained on one computer tape; no files need to be merged. Moreover, it is a stratified sample.

Public-Use Tax Model.—The last form of the Tax Model is the Public-Use Tax Model File. This is a version of the In-house File modified to remove taxpayer identifiers and to otherwise protect the confidentiality of individual taxpayers included in the File. This is the version available to research organizations, universities, and others in the general public.

The Public-Use Tax Model has been purchased by relatively few organizations, approximately eight to ten users per year. However, it is the stature of these users and the work they have done with it, that has contributed to its

reputation. Frequent users have included The Brookings Institution, as mentioned previously; the Congressional Budget Office; the National Bureau of Economic Research; and the Survey Research Center of the University of Michigan.

Congress created the Congressional Budget Office (CBO) in 1974 to analyze and forecast Federal budgets as an alternative to those submitted by the Executive Branch. Over the years, CBO has used the Public-Use Tax Model as an important input to this process, especially in its projections of future income tax revenues due to tax reform [18].

The University of Michigan has used the Public-Use Tax Models for 1979 through 1984 to create an individual panel file. This panel consists of a random sample selected from an unstratified population of individual returns based on SSN ending digits. In lieu of the SSN's, coded numbers are provided by the Statistics of Income Division to enable panel returns to be associated from year to year. All returns with these same SSN endings are selected annually, and they are then imbedded in the Public-Use Tax Model. Originally, there were about 46,000 returns in the panel sample, but since 1983 this number has been reduced to about 20,000 for odd-numbered years (i.e., Tax Years 1983 and 1985) and 10,000 for even-numbered years (i.e., Tax Years 1984 and 1986).

Future Plans

In order to meet the continuing need for additional public use data, a new and larger file is now planned. This file, which will be produced every other year, consists of a sample of over 300,000 returns selected from the Master File system. (Returns selected for the regular SOI sample are included in this number.) The sample will include all data items from the Master File system that are ordinarily used for SOI. Most of the additional, manual, data editing and perfecting for statistical purposes will not apply to this increased sample. However, the data will be tested by computer for statistical use and adjustments made to the data when necessary.

This sample is large enough to support detailed estimates by State. As such, it will be the first time since Tax Year 1982 that reliable State data in sufficient detail will be available from an SOI sample. Previously, the regular SOI sample was designed to provide State estimates as part of the regular individual SOI program.

Current plans call for two methods of release. First, files for each State will be offered to State tax authorities on a cost-reimbursable basis in the same fashion as the State Tax Model. Second, special tabulations will be produced, also on a reimbursable basis. Moreover, plans call for exploring

the possibility of making certain data available on diskettes for use on personal computers.

TAXPAYER USAGE STUDY (TPUS)

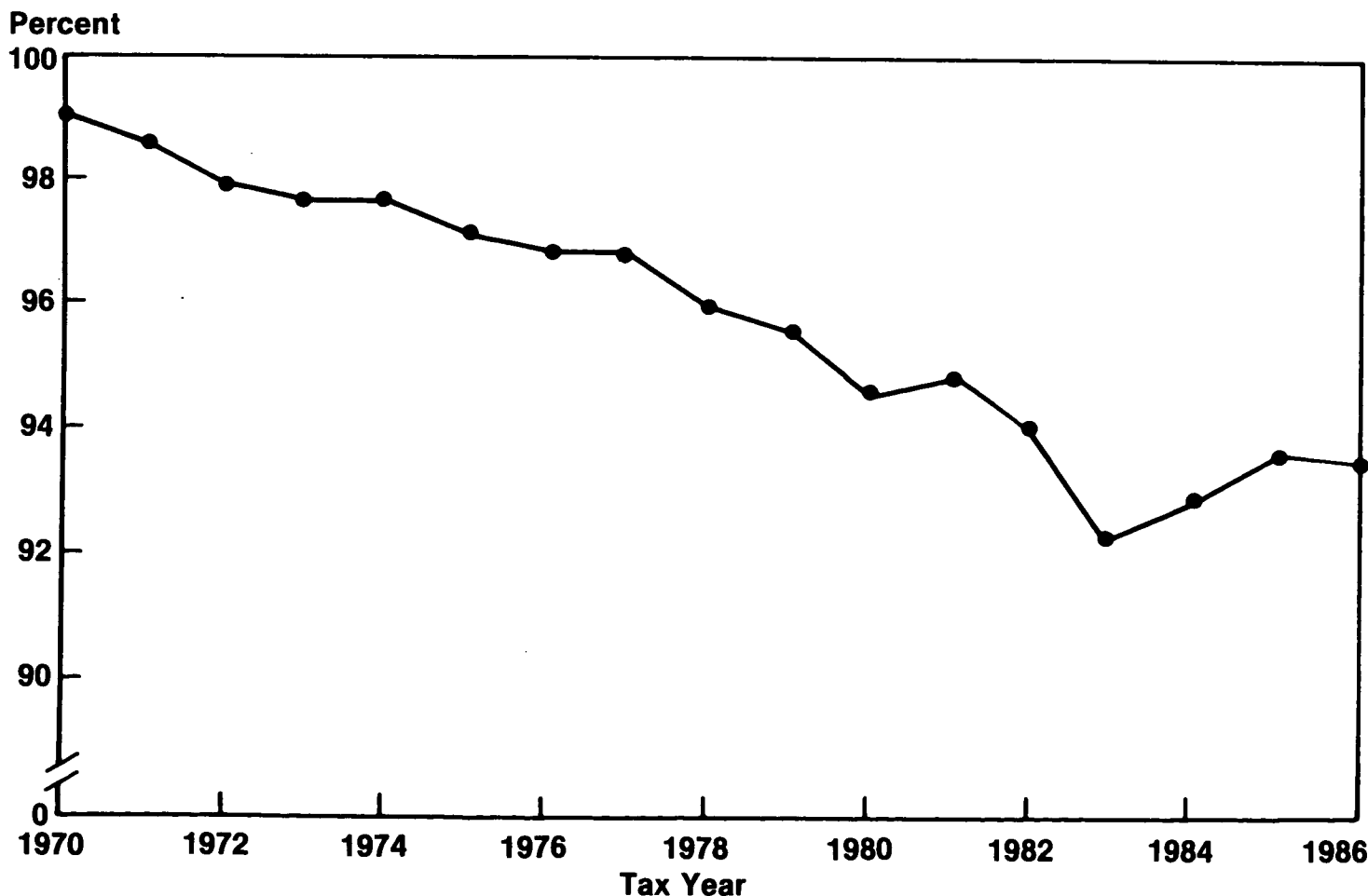
The Taxpayer Usage Study (TPUS) provides statistics on the use taxpayers make of the individual income tax return forms, 1040, 1040A, and 1040EZ, and associated schedules, as well as early information on selected general characteristics of the individual taxpayer population for a given year. This Study, which has been conducted annually since 1969, and previously from time-to-time (starting in the mid-1950's), provides a means of obtaining first indications of trends which would not otherwise be discernible until data became available later in the year from the larger, more complete, SOI samples.

The 1986 TPUS statistics were based on a continual daily random sampling of returns as they were received in the 10 IRS service center mailrooms between January 2 and May 1, 1987. A similar sampling method and similar time period coverage were used in previous TPUS studies since the 1960's, making possible year-to-year comparisons of TPUS data. Currently, TPUS data are published annually in the Summer issue of the *Statistics of Income Bulletin* in the year in which the returns are filed and processed at the service centers [19]. Largely for IRS internal use, weekly statistical summaries are also produced during the January-to-April period.

As is apparent from Figure D, the percentage of individual taxpayers filing returns by the April 15 deadline appears to have declined somewhat in recent years. This decline is

Figure D.

Percentage of Individual Income Tax Returns Filed as of April 15, Tax Years 1970 – 1986



mainly due to the growing number of taxpayers who are taking advantage of the automatic 4-month extension of time in which to file.

The number of data items included in TPUS has grown steadily since its inception, mostly in response to a growing need for early individual income tax return information by tax analysts and tax administrators to assess the effectiveness of new tax laws and tax forms.

TPUS serves its primary purpose of providing early indications of trends in SOI data fairly well. This is evidenced by Figure E which compares TPUS data to both preliminary and final SOI data for Tax Year 1985.

In contrast to TPUS, there are also preliminary SOI data which are based on the regular SOI sample. Returns for the preliminary statistics are sampled through the end of September and results are projected to represent the full year. These data are compiled by the end of the calendar year, months before the final estimates for a tax year become available. Historically, by the end of September approximately 95 percent of the returns to be included in the full SOI sample have been processed. Preliminary data are published in the Winter issue of the *Bulletin* [20].

Therefore, SOI provides data at three distinct stages during its processing cycle. In May, the first characteristics of the tax filing population are available from TPUS. Then, in the winter the more comprehensive preliminary estimates are released on income, deductions, tax, and tax credits by size of AGI. The complete SOI data, based on the full sample, are not generally available until approximately 5 months after release of the preliminary results.

Future Plans

The major focus of changes in the near future for the TPUS program involves the production of improved estimates for the earlier weeks in the filing period. For the Tax Year 1987 program, the sampling rate will be increased to bring in an additional early sample of 10,000 returns (the total sample size for 1986 was about 19,000) for the period

January 1 through March 15, 1988 (i.e., an additional 1,000 returns per IRS service center). This should increase the reliability of the early estimates during the period when they are needed most by IRS tax administrators.

The need for reliable early estimates is especially evident for Tax Year 1987, the first complete year under the 1986 Tax Reform Act, and there will be considerable interest in taxpayer reactions to the new forms, computations, and reporting requirements. For this reason, the TPUS weekly reports were expanded to include most of the new tax reform items, as well as to reflect how well taxpayers are complying with new requirements, such as the reporting of dependents' SSN's. Long-range plans involve a feasibility study on integrating TPUS with SOI processing. The object would be to create a data base in each service center which could produce SOI and TPUS-type data beginning early in each filing year.

SALES OF CAPITAL ASSETS STUDIES

Studies on sales of capital assets by individuals are conducted on a periodic basis. Heretofore, studies have focused on the sales transactions reported on Schedule D (the form used to compute capital gains and losses) and on the supplementary schedules for providing transaction data on sales of residences (Form 2119) and personal and business depreciable property (Form 4797), and for the computation of installment sales income (Form 6252).

For the more recent years' studies, the data were estimated from a subsample of the basic SOI sample. This subsample was subjected to intensive special editing to capture the detailed information required regarding the sales of capital assets transactions (which are often reported in a nonuniform manner) and to classify the assets by type.

The first comprehensive study on sales of capital assets was conducted using Tax Year 1936 tax returns [21]. This was followed by studies for 1959, 1962, 1973, 1977 and 1981 [22]. Figure F provides selected data for these years. The four most recent studies present detailed data on gross

Figure E.—Taxpayer Usage Study and Preliminary and Final Statistics of Income Estimates: Comparison of Number of Returns and Adjusted Gross Income, Tax Year 1985

[All figures are estimates based on samples—Number of returns are in thousands; amounts are in millions of dollars]

Size of adjusted gross income	Taxpayer Usage Study ¹		Preliminary SOI ²		Final SOI ³	
	Number of returns	Amount	Number of returns	Amount	Number of returns	Amount
	(1)	(2)	(3)	(4)	(5)	(6)
All returns, total.....	95,307	\$2,105,393	101,738	\$2,321,887	101,660	2,305,952
Under \$10,000 ⁴	31,363	141,531	33,202	134,352	33,241	127,335
\$10,000 under \$30,000.....	39,779	731,483	41,983	780,515	41,984	780,798
\$30,000 under \$50,000.....	16,892	647,010	18,424	704,340	18,338	700,857
\$50,000 under \$100,000.....	6,276	397,192	6,907	441,598	6,892	441,135
\$100,000 or more.....	997	178,176	1,222	261,082	1,205	255,827

¹ Based on returns filed through April of the filing year.

² Based on estimates of returns filed through December of the filing year.

³ Includes returns with no adjusted gross income.

Figure F.—Number of Returns with Sales of Capital Assets, by Type of Asset or Transaction, Selected Tax Years, 1936–1981

[All figures are estimates based on samples]

Type of assets or transaction	1936	1959	1962	1973	1977	1981
All returns with sales of capital assets	465,612	4,901,694	5,807,945	9,049,598 ¹	9,857,489 ¹	9,709,727 ¹
Corporate stock.....	352,159 ²	1,749,240	2,121,961	2,561,659	2,760,804	3,426,181
U.S. Government obligations.....	(³)	41,393	93,236	30,193		134,196
State and local Government obligations.....	(³)	120,799	52,671	67,305	371,140	243,521
Other bonds, notes, and obligations.....	(³)	107,691	46,425	128,906		126,357
Commodities, including futures contracts.....	n.a.	17,550	28,624	73,052	101,414	197,285
Capital gain distributions.....	n.a.	1,030,615	1,609,255	2,983,492	2,555,012 ¹	2,299,503 ¹
Share of capital gain or loss from estates, trusts, partnerships, and S corporations.....	n.a.	427,805	417,507	735,105	766,679	1,132,546
Personal residences.....	n.a.	54,096	51,138	795,237	1,460,678	1,009,772
Prior-year installment sales proceeds.....	n.a.	307,315	426,101	860,694	572,433	1,421,364

¹ Includes capital gain distributions not required to be reported on Schedule D, the capital gain computation schedule. For 1971 and subsequent years, taxpayers reported distributions (after excluding the nontaxable portion) directly onto the Form 1040 individual income tax return if they had no other capital gains (or losses) to report.

² Data for "sales of corporate stock" also include sales of bonds.

n.a. Not available.

sales price, cost and expense of sale, and gross gain or loss for 25 or more different types of property or capital transactions. Other significant classifications included size of AGI (both before and after the capital gains exclusion), size of net gain or loss, and, for certain asset types, the length of time the asset was held prior to sale. In addition, the 1962 and 1973 statistics were classified by State.

As would be expected, corporate stock has been the asset type most frequently reported. It has also been the largest asset type in terms of the dollars of gains (less losses). Total gains (less losses) from the sales of capital assets has grown continually since 1973. However, as shown in Figure G, sales of business property actually accounted for a larger percentage of the dollar totals until 1981. For that year, sale of residences and the sale of corporate stock each accounted for one fourth of the total gross net gain.

Beginning with the 1973 study, efforts were made to develop a panel of taxpayers over a period of time so that longitudinal analyses of the patterns of reporting gains and losses could be made by Treasury policymakers. Using 1973 as the base year, a subsample of returns was designated for the 2 years prior to, and the 2 years subsequent to, 1973, to provide a 5-year panel. This approach was repeated in connection with the 1981 study which covered 1979–1983, but for a smaller number of taxpayers. The tax return records which constitute this panel contain all the income, deduction, and capital transaction detail for Tax Year 1981; but only income (including totals for capital gains and losses) and deduction data are available for 1979, 1980, 1982, and 1983. No SOI tabulations based on the panel data have been published and, currently, there are no plans to do so.

Future Plans

The Sales of Capital Assets Studies will be conducted on a 5-year cycle. The next study, already underway, will be based on Tax Year 1985 returns [25]. A subsample of the returns has been designated for the next panel. Plans are to

continue this panel for at least 5 years, thus offering users the capability of tracking these taxpayers through the first years under the Tax Reform Act of 1986.

OTHER SOI STUDIES

This section provides a summary of several of the smaller SOI studies which are based on data from the IRS Master File system. Since many of these studies are done on a cost-reimbursable basis, future plans to repeat them are indefinite.

W-2 Earnings Statement and Related Data

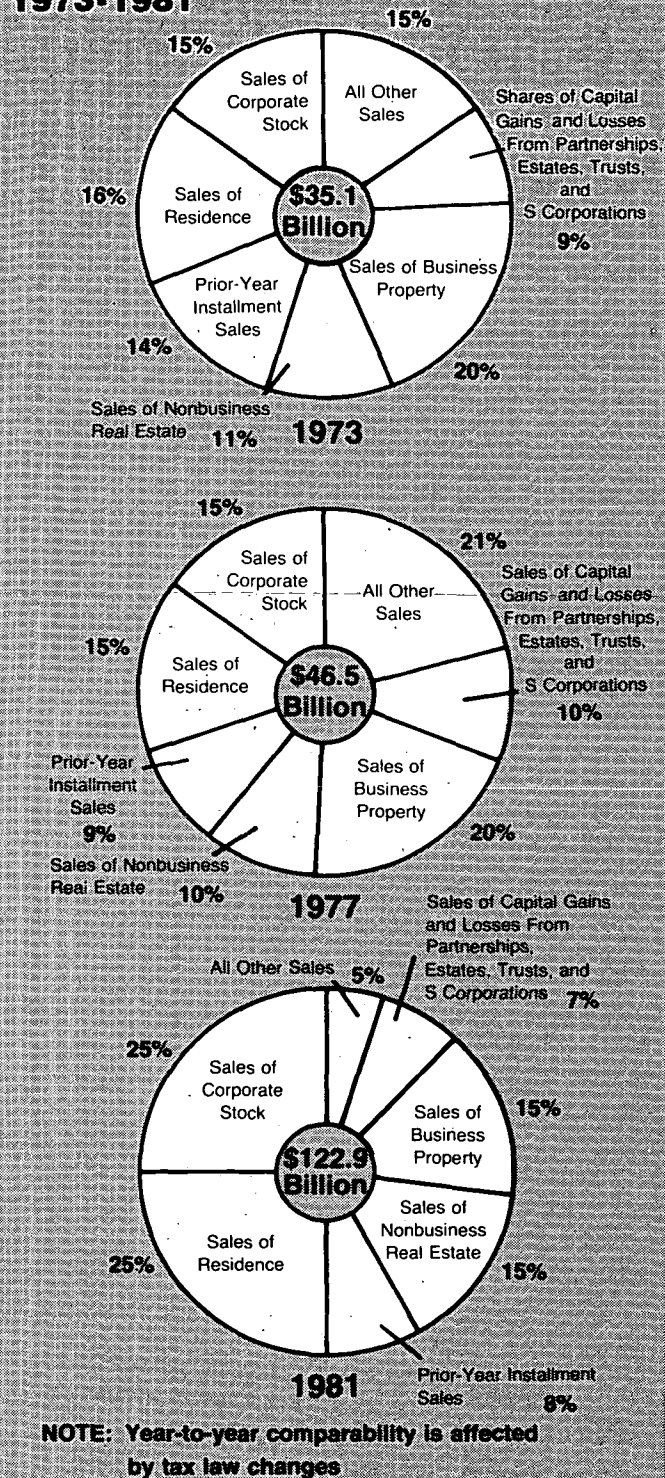
The Form W-2, Wage and Tax Statement (and the Form W-2P, Statement for Recipients of Annuities, Pensions, Retired Pay or IRA Payments) is filed by employers with the Social Security Administration (SSA) and by taxpayers with their individual income tax returns. The most recent statistical studies based on the Form W-2 were conducted for Tax Years 1969, 1974, 1979, and 1983. Other studies are now planned for 1985 and 1987. The purpose of the W-2 Earnings Statement Study is to provide the Office of Tax Analysis and others with:

- information on the income and taxation of two-earner (or two-pension) couples;
- the combined effect of the income tax and the social security (FICA) tax on individual taxpayers; and
- the impact of the tax system on various age groups of individual taxpayers (which first requires a linkage between the W-2 data file and the SSA year-of-birth file).

For the 1979 and 1983 studies, the W-2 Study file has been created by obtaining the Form W-2 and W-2P data from the IRS Master File system, as well as the taxpayers' birth dates from year-of-birth file for all taxpayers whose returns are included in the regular SOI sample. The project is now undertaken for odd-numbered tax years. Data are

Figure G

Gross Gains Less Losses From Sales of Capital Assets, by Type of Asset or Transaction, Selected Tax Years 1973-1981



Mortality Study

The Mortality Study is reimbursable, sponsored by the National Cancer Institute (NCI) to determine whether occupational data from individual income tax returns can be used to establish differential mortality rates for various occupations. Data used for the study include the occupation-coded data file of tax returns used for the regular 1979 SOI program (described below), the corresponding SOI file for sole proprietorships, the SSA year-of-birth file, and the National Death Index (from the National Center for Health Statistics) which verifies the fact of death and contains the death certificate number. Still to be added are cause of death, and the death certificate occupation/industry from death certificates obtained from State Governments.

The current project involves coding deaths in 1979-1984 of taxpayers who filed returns for Tax Year 1979. A major technical problem has been identifying "true" matches to the National Death Index. While an algorithm has been developed by the Statistics of Income Division to assist in distinguishing erroneous matches from true matches, it still may need testing against other algorithms developed by other researchers in the field.

Occupation Coding

For recent years, only one full-scale study of occupation coding has been attempted [24]. This feasibility study involved individual income tax returns (Forms 1040 and 1040A) included in the 1979 SOI sample. The methodology used was to transcribe the occupation title entered by the taxpayer on the tax return and to obtain the industry code from the SSA employer file for use in perfecting the taxpayer's entry. In order to match the tax returns with the employer file, the tax returns were first linked to the corresponding Forms W-2 (using the taxpayer's SSN). The employer identification number of the taxpayer's employer reported on the W-2 was then recorded and used to access the employer file. A computerized occupation-coding dictionary was then created which contained the "standard occupational classification" codes corresponding to the combinations of occupation titles and industry codes actually found on the sampled returns [25].

Efforts since 1985 have been directed mainly at perfecting the computerized dictionary and developing an imputation scheme for returns with missing occupation titles or industry codes. Using any revised methodology, plans call for creating a new file for 1979, and then comparing the results to data from the 1980 Census. A public use file of occupation-coded 1979 Form W-2 data (without the corresponding industry codes from SSA) will be made available, and occupation-coding projects accepted on a reimburs-

made available to the Office of Tax Analysis in the form of a microdata tape file, and to the general public in the form of tables published in the *Statistics of Income Bulletin* [23].

able basis for a number of possible sponsors, including the Department of Defense in connection with its studies of the career advancement of former members of the Armed Forces. In addition, occupation reported on tax returns for subsequent years will be reviewed for a small number of taxpayers included in the 1979 SOI sample to determine how often occupations change over time.

Plans for the future hinge on whether there is sufficient support within IRS or in the Office of Tax Analysis for a larger-scale project. If there is, an occupation question may be considered for the Form 1040EZ filed by certain single taxpayers with no dependents (presently occupational information is requested only on Forms 1040 and 1040A), so that an occupation code can be transcribed during administrative processing for a pre-determined sample of tax returns.

In addition, with the increasing number of returns filed electronically by private tax practitioners, a method will have to be found to capture the occupation entry on these returns. In addition, industry codes from the IRS Master File system may be used in lieu of those from SSA.

Taxpayer Migration Data

The taxpayer migration study is probably one of the largest panel studies ever undertaken, since it uses a "100 percent sample." It is not an IRS study, strictly speaking, but it does involve data files that are provided by the IRS to the Bureau of the Census, as allowed by the Internal Revenue Code for certain statistical purposes. Quite simply, what Census does is to match every IRS record for individual income tax returns filed from January through September of a given year to the previous year's record. The Census Bureau uses tax return records for, among other purposes, making intercensal population and income estimates and to provide county and minor civil division level data. (The latter was used until recently by the Department of the Treasury for the former Federal Revenue Sharing program). Tabulations are also produced for the Statistics of Income Division. These tabulations are available to the public on a reimbursable basis.

The matching of tax return records is in part an operational necessity. While the Census Bureau has elaborate programs to derive county and minor civil division data from street and city addresses, the system is not completely reliable in many geographic "border" areas. Furthermore, taxpayers frequently use a business or post office box address on their returns. A question that appeared on the tax return from time to time through 1980, about the exact governmental unit in which a taxpayer lived, was formerly used to help perfect the address. For more recent years, Census has had to code the records as best it can. To help

increase accuracy, Census now compares the street and city address on each tax return record to that used in the previous year. Only if the address has changed is an attempt made to generate a new geographic location code.

Among the series of data which Census creates from these files are "migration flow data"—matrices which show from where to where the population is shifting; and "county migration data," which show the "in's" and "out's" for each county, i.e., how many taxpayers entered and left the county within a given period of time, how many exemptions they claimed, and, for some years, the amount of income for in-migrants, out-migrants, and non-migrants.

Obviously, such statistics are of great interest to Government planners at the local level who want to know what is happening to their tax base and what can be expected to happen in the way of demand for services. Local retailers also find these statistics to be of great value. Most of the people who request the data want them for only a few counties, or for just one State.

As it turns out, the average income of migrants is considerably less than that of non-migrants, at least for the year immediately preceding migration. For example, comparing matched Tax Year 1979 to Tax Year 1981 data, the average 1979 AGI of those taxpayers who were about to leave their county of residence was \$14,227, or 82 percent of the average income of the taxpayers who were remaining in their county of residence. At the end of this 2-year period, the income of the migrants had risen to an average of \$17,935; this represented 85 percent of the income of the non-migrants. In other words, migration appears to have had a small but noticeable positive effect on income; actually, since some of the second-year income may have been earned at the former place of residence, and since it frequently had been reduced on the tax return by the deduction for moving expenses, following these returns for 1 more year might show that the average incomes of the migrants moved even closer to those of the non-migrants.

Department of Defense (DOD) Salary Study

The Department of Defense (DOD) Salary Study is the result of a public law which requires that Department to perform an evaluation of the military pay structure at least once every 4 years. Part of this study entails following the earnings of persons who leave the Armed Forces—"separates" as they are called—to learn what the "opportunity costs" are for persons who remain in the Armed Forces.

The sample of separates is chosen by DOD to represent a wide range of length-of-service, rank, age, military occupation, and year-of-separation groupings. Once selected for the sample, the individual remains in it for the duration of

the study; however, new separatees are sampled each year. DOD provides IRS with the SSN's of the separatees along with codes indicating their DOD characteristics, e.g., length-of-service and rank. The Statistics of Income Division then obtains the total salaries and wages reported on Form W-2 records by the employers of these taxpayers. Using Forms W-2 rather than income tax returns as the source of wage data permits information to be obtained separately on the former members of the Armed Forces as well as their spouses.

Because of taxpayer rights of privacy, tax return-identifiable data cannot, of course, be released to DOD. All SSN's are, therefore, removed from the data before they are released. Furthermore, steps are taken to be sure that DOD has supplied at least three individuals with any given combinations of DOD characteristics, so that DOD will not be able to match back to the SSN's using the characteristics data.

One of the limitations of this panel is missing data. There are no indicators on the Form W-2 file which would indicate whether a person for whom no data are available is self-employed, unemployed, retired, or deceased. Therefore, there is no way to determine whether the lack of data was the result of a processing error, e.g., incorrect transcription of the SSN. At present, the only alternative is to omit these individuals from the analysis.

In spite of these limitations, DOD has reached some interesting conclusions from comparing the incomes of separatees to those of the population as a whole, as well as to those of individuals who remained in the Armed Forces. For example, it appears that a short career in the Armed Forces—up to 4 years for enlisted men, up to 8 years for officers—is quite beneficial to future earning power. Individuals who leave the Armed Forces within those periods earn more in civilian life than do their counterparts who never served. However, after about 12 years of service, there is definitely no competitive edge, and after 16 years, separatees tend to earn less than both those who never served and those who remain in the Armed Forces.

Not surprisingly, the post-service earnings patterns differed considerably for persons in different military occupations. For example, physicians and dentists did extremely well, no matter when they left the Armed Forces. Persons in aviation-related jobs did very well if they left early, but not nearly as well if they stayed on in the Armed Forces for any length of time before they left. Based on such findings, DOD came up with recommendations for bonuses and incentive payments specific to each military occupation.

NOTES AND REFERENCES

- [1] See also Skelly, Daniel F., and Hobbs, James R., "Statistics of Income Studies of International Income

and Taxes," *Statistics of Income Bulletin*, Fall 1986, Volume 6, Number 2, and Skelly, Daniel F., and Kozelec, John A., "Statistics of Income Domestic Special Studies," *Statistics of Income Bulletin*, Fall 1987, Volume 7, Number 2.

- [2] Studies based on sole proprietorship schedules attached to individual income tax returns are discussed in the Spring 1988 issue of the *Statistics of Income Bulletin*, in an article on SOI studies of business income and taxes. Studies on individual income earned abroad and on the foreign tax credit claimed by individuals are discussed in the Fall 1986 issue of the *Bulletin*, in an article on SOI studies of international income and taxes. See also, Wolfe, Raymond M., "Sole Proprietorship Returns, 1985" and Paris, David, "Foreign Income and Taxes Reported on U.S. Individual Tax Returns, 1983: An Overview," *Statistics of Income Bulletin*, Summer 1987, Volume 7, Number 1.
- [3] Much of the material appearing in this section is borrowed from a previous *Bulletin* article. See Paris, David and Hilgert, Cecelia, "70th Year of Individual Income and Tax Statistics, 1913-1982," *Statistics of Income Bulletin*, Winter 1983-1984, Volume 3, Number 3. See also, *Statistics of Income—50th Year, Historical Summary, 1916-1965*, Statistics Division, Internal Revenue Service (unpublished report).
- [4] Exhibit 1 is updated from Blacksin, Jack and Plowden, Ray, "Statistics of Income for Individuals: A Historical Perspective," *1981 American Statistical Association Proceedings, Section on Survey Research Methods*.
- [5] The latter definitions were introduced mainly to facilitate analysis of data reported on returns of high-income taxpayers by the Office of Tax Analysis in the Office of the Secretary of the Treasury. Results of this analysis are contained in an annual report to Congress that is required under the Revenue Act of 1976. This report is currently published in the annual *Statistics of Income—Individual Income Tax Returns*. Additional analyses, including comparisons with prior years, are published each year in the *Statistics of Income Bulletin*; see, for example, Lerman, Allen H., "High-Income Returns for 1984," *Statistics of Income Bulletin*, Spring 1987, Volume 7, Number 2.
- [6] Since Tax Year 1982, a limited amount of data by State has been available from the Master File system. These data are published in the Selected Statistical Series section of the *Statistics of Income Bulletin* (which also includes a short description of why there are some differences between statistics by State based on the SOI sample and statistics by State based on the

administrative data from the Master File system). These data are updated annually in the Fall issue. For future plans to provide data by State, see the discussion below, under "Tax Model."

- [7] U.S. Department of the Treasury, Internal Revenue Service, *Statistics of Income—1985, Individual Income Tax Returns*.
- [8] For preliminary data for 1986, see Shiley, Martha, and Kalish, Robert, "Individual Income Tax Returns, Preliminary Data, 1986," *Statistics of Income Bulletin*, Winter 1987–1988, Volume 7, Number 3.
- [9] *Ibid.*
- [10] See Franklin, Corman G., "Projections of Returns to be Filed in Fiscal Years 1988–1995," *Statistics of Income Bulletin*, Fall 1987, Volume 7, Number 2.
- [11] The number of exemptions claimed on tax returns gives a count of the number of individuals actually covered by the tax filing system. There are, however, some adjustments that have to be made to the number of exemptions to compensate for over- and undercounting of individuals. Prior to enactment of the Tax Reform Act of 1986, these included: subtraction of the extra exemptions for age and blindness, elimination of duplicate counting of dependents with unearned income, and adjustments to compensate for overcounting of certain deceased taxpayers, dependents with earned income, and dependents of divorced tax return filers. The 1986 Act modified some of the adjustments that were previously required. For more information on comparability of census population counts and counts obtainable from individual income tax returns, see, for example, Alvey, Wendy, and Scheuren, Fritz, "Background for an Administrative Record Census," 1982 *Proceedings of the American Statistical Association, Section on Survey Research Methods*.
- [12] The shortcomings of the tax return reporting unit and of "taxable" income (in contrast to "economic" income) for use in tax research have long been recognized, especially when estimating the revenue effects of new tax proposals. Starting with the SOI Tax Model file, Office of Tax Analysis economists have attempted to overcome these limitations by combining tax return data into "families" through "statistical" matches (in contrast to "exact" matches) with Bureau of the Census data (that include income data for "households") on the basis of units having similar characteristics. However, this kind of match is imperfect at best. As a result, the Statistics of Income Division has been asked to address some of these shortcomings based on new information reported on the individual income

tax return. Efforts will be directed to creating the family, using identifying information on the tax return starting with 1987, which will enable the separate tax returns of family members to be identified and associated for inclusion in future SOI samples. In addition, new data on income reported as a result of 1986 and other recent law changes, e.g., on tax-exempt interest on State and local Government obligations, should enable SOI to compute a measure of income that is closer, conceptually, to "economic" income.

For a discussion of SOI usage of "adjusted gross income" (AGI) in historical perspective and a consideration of alternative economic income concepts, see Hostetter, Susan, "Measuring Income for Developing and Reviewing Individual Income Tax Law Changes: Exploration of Alternative Concepts," *Statistics of Income and Related Administrative Record Research: 1986–1987*, Internal Revenue Service, U.S. Department of the Treasury, 1987. For a discussion of the family income concept that has been used by economists in the Office of Tax Analysis, see Nelson, Susan C., "Family Economic Income and Other Income Concepts Used in Analyzing Tax Reform," *Compendium of Tax Research*, 1986, Office of Tax Analysis, U.S. Department of Treasury, 1987. For a broader review of problems in tax modelling for tax reform by a former member of the Office of Tax Analysis, see Bristol, Ralph B., Jr., "Tax Modelling and the Policy Environment of the 1990's," *Multi-National Tax Modelling Symposium Proceedings*, Revenue Canada Taxation, 1985.

- [13] *Ibid.*
- [14] For a discussion of research undertaken and methods instituted to protect taxpayer confidentiality in the Tax Model, see Strudler, Michael, Oh, H. Lock, and Scheuren, Fritz, "Protection of Taxpayer Confidentiality with Respect to the Tax Model", 1986 *Proceedings of the American Statistical Association, Section on Survey Research*. For discussions of special techniques for protecting confidentiality in statistical data derived from administrative records, see also Spruill, Nancy L., "Measures of Confidentiality," *Statistics of Income and Related Administrative Record Research: 1982*, Internal Revenue Service, U. S. Department of the Treasury, 1982, and Spruill, Nancy L., "The Confidentiality and Analytic Usefulness of Masked Business Microdata," 1983 *Proceedings of the American Statistical Association, Section on Survey Research Methods*.
- [15] For two examples of Brookings Institution publications which relied heavily on the SOI Tax Model File, see Pechman, Joseph A., *Who Paid the Taxes, 1966–1985*, The Brookings Institution, 1985, and *Federal Tax Policy*, 5th Edition, The Brookings Institution, 1987.

- [16] Further information about the most recent Public-Use Tax File or State Tax Model File can be obtained by writing to the Director, Statistics of Income Division, TR:S, Internal Revenue Service, 1111 Constitution Avenue, N.W., Washington, DC 20224 and requesting a copy of the "General Description Booklet for the 1985 Individual Tax Model File," or the "General Description Booklet for the 1985 Individual State Tax Model File."
- The Public Use Tax Model File (and tabulations based on the In-house File) may be obtained on a cost-reimbursable basis by writing to the Director, Statistics of Income Division, at the address given above. Requests from State tax administration agencies for the State Tax Model File for their own particular State should be addressed to the District Director, Internal Revenue Service, for a district office that serves that State.
- [17] For a brief description of the IRS Master File system and the relationship between statistical and administrative processing of tax returns, see Wilson, Robert A., "Statistics of Income: A Byproduct of the U.S. Tax System," *Multi-National Tax Modelling Proceedings*, Revenue Canada Taxation, 1985.
- [18] For an example of how the Public-Use Tax Model File was used by the Congressional Budget Office (CBO), see *The Changing Distribution of Federal Taxes: 1975-1990*, Congressional Budget Office, Congress of the United States, 1987. For this study, the CBO used the 1977 and 1984 Public-Use Tax Models, and then regressed the data backward to 1975 and projected it forward to 1990 (encompassing the full effects of the Tax Reform Act of 1986).
- [19] See, for example, Weber, Michael E., and Paris, David P., "Individual Income Tax Returns for 1986: Selected Characteristics from the Taxpayer Usage Study," *Statistics of Income Bulletin*, Summer 1987, Volume 7, Number 1.
- [20] See, Shiley, Martha, and Kalish, Robert, *op. cit.*
- [21] Additional information on the Tax Year 1936 study can be found in *Statistics of Income Supplement Compiled from Income Tax Returns for 1936, Section IV, Capital Gains and Losses*, and in Seltzer, Lawrence H., *The Tax Treatment of Capital Gains and Losses*, National Bureau of Economic Research, 1951. The 1936 study was preceded by more limited studies for Tax Years 1930, 1932, and 1933, using selections of returns that showed sales of stocks and bonds only. All four studies were conducted with assistance from the Works Projects Administration and, in addition, for 1933, from the National Bureau of Economic Research, and all were included in compilations that are part of the unpublished *Source Book of Statistics of Income* for these years.
- [22] For additional information on Sales of Capital Assets, see *Supplemental Report, Statistics of Income—1973, Sales of Capital Assets Reported on Individual Income Tax Returns*. See also, Brame, Bertie, and Gilmour, Keith, "Sales of Capital Assets, 1973-1980," *Statistics of Income Bulletin*, Summer 1982, Volume 2, Number 1, and Clark, Bobby, and Paris, David, "Sales of Capital Assets, 1981 and 1982," *Statistics of Income Bulletin*, Winter 1985-86, Volume 5, Number 3.
- [23] See, for example, Windheim, Barry, and Crossed, Charles, "Salaries and Wages Reported on Form W-2, by Marital Status and Age, 1983," *Statistics of Income Bulletin*, Winter 1987-1988, Volume 7, Number 3.
- [24] To date, the only complete study of occupations based on individual income tax returns was published in the *Statistics of Income* report for Tax Year 1916; there were 36 categories for which data were provided.
- [25] The "standard occupational codes" are contained in the *Standard Occupational Classification Manual*, Office of Federal Statistical Policy and Standards, U.S. Department of Commerce, 1980.

Exhibit 1.—Types of Data Published in Individual Statistics of Income Reports for Selected Tax Years, 1916–1985

Subject	Number of tables by selected tax year														
	1916	1921	1926	1931	1936	1941	1946	1951	1956	1961	1966	1971	1976	1981 ¹	1985 ¹
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Total number of tables															
All tables, total	17	22	20	26	26	28	25	19	30	48	89	68	64	36	20
Text tables.....	10	12	10	14	13	15	11	5	12	19	30	18	15	14	3
Basic tables.....	7	10	10	12	13	13	14	14	18	28	59	50	49	21	17
Number of basic tables															
Sources of income, total	5	5	7	4	7	8	6	10	5	11	25	15	11	8	8
By size of net income or adjusted gross income ³	2	3	3	2	4	5	1	3	1	2	5	2	4	5	5
By size or type of income source.....							2	4	2	2	4	3	1		
By frequency of source.....										3	6				
By marital status.....	1		1	1	1	1	1	1	1	2	3	6	3	1	3
By State.....	1	2	2	1	2	2	2	2	1	2	3	2	2	2	
For age 65 or over.....											4	2	1	1	1
Deductions, total			1	2	1		3	1	5	4	18	5	10	4	2
By size of net income or adjusted gross income ²				1			3	1	4	3	3	3	2	1	1
By size or type of deduction.....									1	1	7				
By marital status.....			1	1	1						3	2	2	1	1
By State.....											2		1	1	
For age 65 or over.....														1	
As percentage of income.....										3			5		
Exemptions, total							1	1	1	1	4	2	3	4	2
By size of adjusted gross income.....							1				1			1	1
By marital status.....									1				1	1	
By State.....											1	1	1	1	
By type of exemption.....											2	1	1	1	
Tax liability, total							2		5	7	7	21	12	6	6
By size of net income or adjusted gross income ²							2		1		1	6	1	3	1
By type of computation.....												8	5	1	1
By marginal tax rate.....									1	7	5	7	6		2
By State.....									3		1			1	1
As percentage of income.....														1	
By marital status.....														1	
Tax credits and payments, total				2							1		7	4	1
By size of net income or adjusted gross income ²				1							1		5	2	1
By size of credit or payment.....															
By State.....				1									2	2	
Balance due or overpayment, total					2		1	1			2	3	2	1	
By size of net income or adjusted gross income ²					2		1	1				1		1	
By size or type of item.....											2	2	2		
Other classifications, total	2	5	3	4	3	5	1	1	2	5	2	4	4	3	
Occupation.....	1														
Taxable and nontaxable returns.....						1			1	1		1	1	1	
Sex of taxpayer.....	1	2	1	1	1	1									
Returns with no adjusted gross income ²				2	2	3									
Form 1040A returns.....										1	1				
Presidential campaign checkoff.....															
Historical data.....		1	1	1			1	1	1	1	1			2 ³	2 ³
County.....		1	1												
City.....		1													
Standard metropolitan statistical area.....										2		3			
Returns with residential energy tax credits.....														2	

¹ For Tax Years 1981 and 1985 the number of basic tables under each category do not add to the "Basic tables" total because of a table redesign that began with Tax Year 1980. Beginning with Tax Year 1980 many tables previously shown separately were combined with others.

² "Net income" for 1916 through 1943; "adjusted gross income" thereafter.

³ Published in the Selected Statistical Series section of the SOI Bulletin and therefore not reflected in the totals above.

Table I.—Number of Returns, Leading Sources of Income, Adjusted Gross Income, and Tax, Tax Years 1913–1986

[For most years, figures are estimates based on samples—number of returns are in thousands; money amounts are in millions of dollars]

Tax Year	Returns			Leading sources of income							Income tax before credits	Total tax liability ⁵
	Number	Increase or decrease (–)		Salaries and wages ¹	Sole proprietorships and partnerships ²	Dividends ³	Taxable interest ⁴	Total		Adjusted gross income (less deficit)		
		Number	Percent					Amount	Percentage of adjusted gross income			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Individuals with income only, and estates and trusts with taxable income												
1913 ⁶	358	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	N/A	N/A	28	28
1914	358	(⁷)	(⁸)	n.a.	n.a.	n.a.	n.a.	n.a.	N/A	N/A	41	41
1915	337	–21	–5.8	n.a.	n.a.	n.a.	n.a.	n.a.	N/A	N/A	68	68
1916	437	100	29.7	1,851	n.a.	2,136	n.a.	n.a.	N/A	N/A	173	173
1917	3,473	3,036	694.7	3,648	3,640	2,849	n.a.	n.a.	N/A	N/A	795	795
1918	4,425	952	27.4	8,267	4,339	2,469	n.a.	n.a.	N/A	N/A	1,128	1,128
1919	5,333	908	20.5	10,756	5,709	2,454	n.a.	n.a.	N/A	N/A	1,270	1,270
1920	7,260	1,927	36.1	15,323	4,922	2,736	n.a.	n.a.	N/A	N/A	1,075	1,075
1921	6,662	–598	–8.2	13,813	3,707	2,477	n.a.	n.a.	N/A	N/A	719	719
1922	6,787	125	1.9	13,694	4,267	2,664	n.a.	n.a.	N/A	N/A	862	861
1923	7,698	911	13.4	14,195	6,399	3,120	n.a.	n.a.	N/A	N/A	882	662
1924	7,370	–328	–4.3	13,618	6,565	3,251	n.a.	n.a.	N/A	N/A	744	704
1925	4,171	–3,199	–43.4	9,742	5,516	3,465	n.a.	n.a.	N/A	N/A	767	735
1926	4,138	–33	–0.8	9,994	5,306	4,012	n.a.	n.a.	N/A	N/A	761	732
1927	4,102	–36	–0.9	10,218	5,043	4,255	1,723	21,239	N/A	N/A	862	831
Individuals with income or deficit, and estates and trusts with taxable income												
1928	4,144	42	1.0	10,945	5,2237	4,440	n.a.	n.a.	N/A	N/A	1,204	1,164
1929	4,137	–7	–0.2	11,373	5,2827	5,081	n.a.	n.a.	N/A	N/A	1,029	1,002
1930	3,852	–285	–6.9	10,206	3,102	4,632	n.a.	n.a.	N/A	N/A	512	477
1931	3,411	–441	–11.4	8,631	2,016	3,600	n.a.	n.a.	N/A	N/A	288	246
1932	4,084	673	19.7	8,356	1,229	2,189	1,307	13,081	N/A	N/A	402	330
1933	3,892	–192	–4.7	7,565	1,746	1,711	1,106	12,128	N/A	N/A	425	374
1934	4,198	306	7.9	8,681	2,125	2,041	995	13,842	N/A	N/A	511	511
1935	4,670	472	11.2	9,972	2,387	2,288	980	15,627	N/A	N/A	657	657
1936	5,486	816	17.5	11,718	3,210	3,288	955	19,111	N/A	N/A	1,214	1,214
1937	6,386	900	16.4	14,206	3,359	3,248	856	21,669	N/A	N/A	1,142	1,142
Individuals with income or deficit												
1938	6,251	–135	–2.1	13,307	3,120	2,212	823	19,462	N/A	N/A	766	766
1939	7,653	1,402	22.4	16,491	3,674	2,544	832	23,541	N/A	N/A	929	929
1940	14,711	7,058	92.2	27,707	5,407	2,999	1,003	37,116	N/A	N/A	1,496	1,496
1941	25,870	11,159	75.9	47,140	8,455	3,299	1,029	59,923	N/A	N/A	3,908	3,908
1942	36,619	10,749	41.6	65,617	12,391	2,833	982	81,823	N/A	N/A	8,927	8,927
1943	43,722	7,103	19.4	82,755	15,717	2,780	886	102,138	N/A	N/A	14,607	31,736
1944	47,111	3,389	7.8	91,125	17,250	3,924 3,925		112,299	96.4	116,465	16,225	16,216
1945	49,932	2,821	6.0	91,700	19,003			114,628	95.5	120,009	17,061	17,050
1946	52,817	2,885	5.8	99,174	23,267	3,674	1,067	127,182	94.9	134,083	16,092	16,076
1947	55,099	2,282	4.3	114,804	23,295	4,295	1,125	143,519	95.8	149,736	18,092	18,076
1948	52,072	–3,027	–5.5	125,881	24,506	4,971	1,293	156,651	95.8	163,516	n.a.	15,442
1949	51,814	–258	–0.5	124,883	21,705	5,246	1,528	153,362	95.5	160,574	n.a.	14,538
1950	53,060	1,246	2.4	139,073	23,429	6,157	1,595	170,254	95.0	179,148	n.a.	18,375
1951	55,447	2,387	4.5	160,482	24,878	6,056	1,702	193,118	95.4	202,337	n.a.	24,439
1952	56,529	1,082	2.0	174,339	24,754	5,860	1,847	208,800	97.0	215,290	27,823	28,020
1953	57,838	1,309	2.3	187,734	24,951	5,828	2,043	220,556	96.4	228,708	29,450	29,657
1954	56,747	–1,091	–1.8	185,953	25,452	7,048	2,370	220,823	96.3	229,221	26,874	26,666
1955	58,250	1,503	2.6	200,712	27,454	7,851	2,584	238,601	96.0	248,530	29,983	30,077
1956	59,197	947	1.6	215,618	30,137	8,606	2,872	257,233	96.1	267,724	33,134	33,265
1957	59,825	628	1.1	228,077	29,698	9,124	3,319	270,218	96.4	280,321	34,816	34,975

Table 1.(Continued)—Number of Returns, Leading Sources of Income, Adjusted Gross Income, and Tax, Tax Years 1913–1986

[For most years, figures are estimates based on samples—number of returns are in thousands; money amounts are in millions of dollars]

Tax Year	Returns			Leading sources of income						Income tax before credits	Total tax liability ⁵	
	Number	Increase or decrease (–)		Salaries and wages ¹	Sole proprietor- ships and partner- ships ²	Dividends ³	Taxable interest ⁴	Total				Adjusted gross income (less deficit)
		Number	Percent					Amount	Percentage of adjusted gross income			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1958	59,085	– 740	– 1.2	227,551	29,906	8,741	3,659	269,857	96.0	281,154	34,755	34,925
1959	60,271	1,186	2.0	247,370	30,994	9,356	4,395	292,115	95.7	305,094	39,092	39,347
1960	61,028	757	1.3	257,918	30,038	9,530	5,057	302,543	95.9	315,466	39,909	40,298
1961	61,499	471	0.8	266,902	31,578	9,890	5,683	314,053	95.2	329,861	42,715	43,066
1962	62,712	1,213	2.0	283,373	33,269	10,640	7,155	334,437	95.9	348,701	45,692	45,790
1963	63,943	1,231	2.0	299,443	33,184	11,452	9,212	353,291	95.8	368,778	49,117	49,216
1964	65,376	1,432	2.2	323,266	35,358	11,917	10,125	380,666	96.0	396,660	47,897	48,185
1965	67,596	2,221	3.4	347,150	38,559	12,961	11,296	409,966	95.5	429,201	50,144	40,632
1966	70,160	2,564	3.8	381,067	42,179	13,998	13,225	450,469	96.2	468,451	56,773	57,627
1967	71,652	1,492	2.1	411,646	43,745	14,202	14,899	484,492	96.0	504,809	63,656	64,524
1968	73,729	2,077	2.9	451,505	45,502	15,222	16,782	529,011	95.4	554,420	72,261	78,419
1969	75,834	2,105	2.9	498,865	47,683	15,740	19,626	581,914	96.4	603,546	79,643	88,524
1970	74,280	– 1,554	– 2.0	531,884	45,981	15,807	22,021	615,693	97.5	631,693	82,138	85,767
1971	74,576	296	0.4	564,967	47,057	15,671	24,731	652,426	96.9	673,619	85,943	87,469
1972	77,573	2,997	4.0	622,599	51,729	16,794	27,400	718,522	96.3	745,975	94,442	95,949
1973	80,693	3,120	4.0	687,179	52,985	18,734	32,174	791,074	95.6	827,140	109,395	111,175
1974	83,340	2,647	3.3	758,629	57,633	20,888	39,543	876,693	96.8	905,523	125,079	127,003
1975	82,229	– 1,111	– 1.3	795,399	55,796	21,892	43,434	916,521	96.7	947,785	132,452	127,939
1976	84,670	2,441	3.0	880,999	61,514	24,462	48,511	1,015,486	96.4	1,053,896	153,534	145,749
1977	86,635	1,965	2.3	969,404	65,243	27,020	54,603	1,116,270	96.4	1,158,492	172,112	164,024
1978	89,772	3,137	3.6	1,090,292	74,441	30,206	61,223	1,256,162	96.4	1,302,447	203,804	193,185
1979	92,694	2,922	3.3	1,229,251	73,369	33,483	73,875	1,409,978	96.2	1,465,395	220,100	220,100
1980	93,902	1,208	1.3	1,349,843	63,436	38,761	102,009	1,554,049	95.7	1,613,731	256,294	256,251
1981	95,396	1,494	1.6	1,486,100	44,305	178,098		1,708,503	96.4	1,772,604	293,590	291,127
1982	95,377	19	(⁶)	1,564,995	50,993	52,142	157,021	1,825,151	98.5	1,852,135	283,932	284,708
1983	96,321	944	1.0	1,644,513	61,872	48,557	153,805	1,908,807	98.3	1,942,590	279,842	282,318
1984	99,439	3,118	3.2	1,807,138	55,403	48,641	176,369	2,087,551	97.6	2,139,904	306,686	312,534
1985	101,660	2,221	2.2	1,928,201	64,241	55,046	182,109	2,229,597	96.7	2,305,951	332,165	338,765
p1986	103,300	1,640	1.6	2,046,135	88,913	63,074	168,202	2,522,517	93.8	2,522,517	378,422	390,796

n.a. — Not available.

N/A — Not applicable.

p — Preliminary.

¹ Includes income from "professions and vocations" for 1916; earned income from partnerships, 1916–1926; wages of the taxpayer and of the spouse and dependent minors from sole proprietorships, 1916–1923, and of the spouse and dependent minors only, 1944–1949. For 1944–1965, excludes small amounts not subject to tax withholding; for 1954–1963, amounts shown are after sick pay exclusion and certain allowable employee expenses.

² Includes net gain from sales of certain capital assets and other kinds of property for 1916; and income from sole proprietorships and partnerships for all years except those specified in footnote 1. However, prior to 1930 income was not reduced by deficits reported by loss businesses. Also, starting 1966, includes income from S Corporations.

³ In general, includes all domestic and foreign dividends starting 1936, except for certain small amounts for 1944–1965; previously, certain foreign dividends were excluded. Includes stock dividends, 1916–1919. The combined total for dividends and interest for 1944–1945 includes partially tax-exempt interest. Amounts for 1954–1986 are after subtraction of dividend exclusion. For 1981, because of a one-time combined interest and dividend exclusion, the amount shown is a combination of interest and dividends after exclusion; before exclusion, dividends alone were \$48,161 million. Prior to 1936 and for 1954–1986, includes dividends received through partnerships, estates, and trusts.

⁴ In general, prior to 1966, excludes generally small taxable amounts. For 1944–1961, includes partially tax-exempt interest. For 1981, because of a one-time combined interest and dividend exclusion, the amount shown is a combination of interest and dividends after exclusion; before exclusion, interest alone was \$140,559 million.

⁵ In addition to income tax after credits, includes such other taxes as excess profits tax, 1917; defense tax, 1940; victory tax, 1943; self-employment (social security) tax, starting 1951; tax from recomputing prior-year investment credit, starting 1963; income tax surcharge, 1968–1970; minimum tax, 1970–1982; and alternative minimum tax starting 1979. Also, for 1913–1915, includes fines, penalties, additional assessments, and the like, in addition to the tax liability reported on the income tax return.

⁶ Tax Year 1913 covered only 10 months, March–December 1913.

⁷ Decrease under 500 returns.

⁸ Less than 0.05 percent.

NOTE: Year-to-year comparability is affected by tax law changes which are in addition to those reflected in footnotes 1–5; see *Statistics of Income* reports for the appropriate year for further information. Detail may not add to totals because of rounding.